

ABSTRACT

An adaptive digital image processor precedes an MPEG2 encoder. The
5 processor receives a high definition video signal intended for broadcast or
storage, and adaptively low-pass filters the signal. The signal is subjected to
low-pass two-dimensional filtering to eliminate encoding artifacts and related
noise. The video signal is then horizontally down-sampled to create a lower
resolution hybrid signal. A receiver decodes and decompresses the hybrid signal.
10 The hybrid signal is upsampled to its original resolution using existing hardware
and software with a software modification.